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(54) OSTEOANAGENESIS MATERIAL

(57)Abstract:

PROBLEM TO BE SOLVED: To promote a formation of a new bone and shorten a time to treat and recover the new bone by including polyphosphoric acid which is composed of straight-chain condensation polyphosphoric acid and polyphosphate and so forth in an osteoanagenesis material.

SOLUTION: Straight-chain condensation polyphosphoric acid of which an acid orthophosphate is dehydrated and condensed and side-chain condensation polyphosphoric acid which introduces an organic group in side-chain are cited as polyphosphoric acid, especially, straight-chain condensation polyphosphoric acid which is expressed by the formula:  $(P_nO_{3n+1})(n+2)H$  and has a heteroatom on the top of a  $PO_4$  tetrahedron in which  $n$  is more than 2 in common then being shaped into a straight-chain is desirable. Polyphosphate is made by replacing hydrogen of a hydroxy group for polyphosphoric acid with metal. On the other hand, a sheet, a film, a fiber and a multihole body and the like which are made of a biocompatible synthetic polymer, a natural material or the like are cited as a substrate made of a material that has biocompatibility. And the polyphosphoric acid is used for mixing these material and coating a surface of the substrate.

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